

Update

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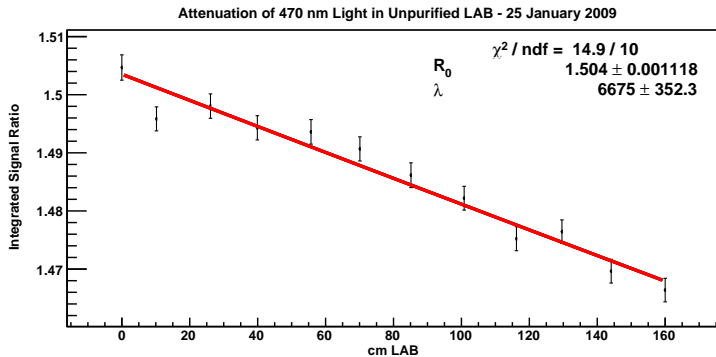
February 6, 2009

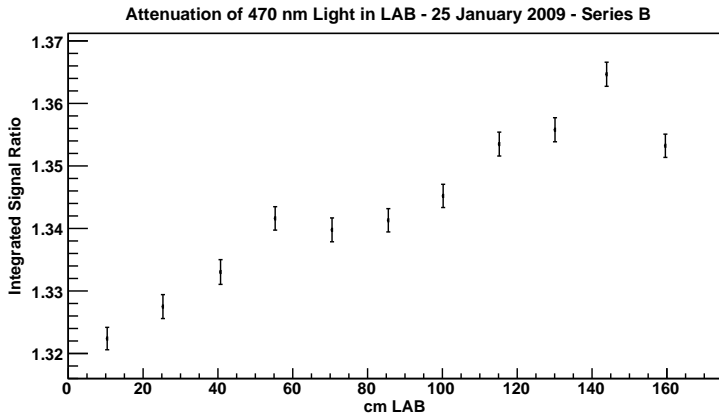
Overview

1 Attenuation Measurements

- Dual LED measurements are still off with new base
- Perhaps we're blasting the PMT with too much light too often.... Perhaps we should keep the same pulse rate with the dual system as the single... that means 'ping-ponging' the trigger.

... but first let's see what we get with a single LED ...





Okay... so what is so different about these two runs?

- Series A was taken as the sample column was **filled**.
- Series B was taken as the sample column was **drained**.

The beam was aligned before each run. The movement of the beam spot is imperceptible by eye, but perhaps not with the PMT. The size of the effect at 470 nm may be artificial!

BEAM PROFILE :

FIG 1

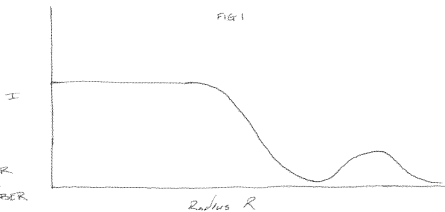
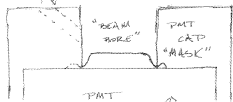
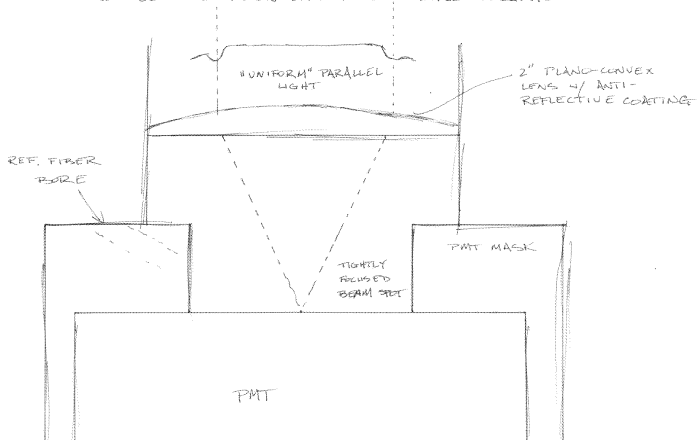
BORE FOR
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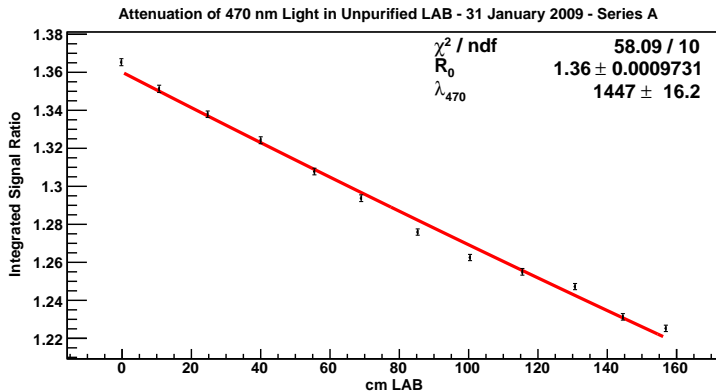
FIG 2

PERHAPS SMALL MOTION OF BEAM
ACCOUNTS FOR 3% effect

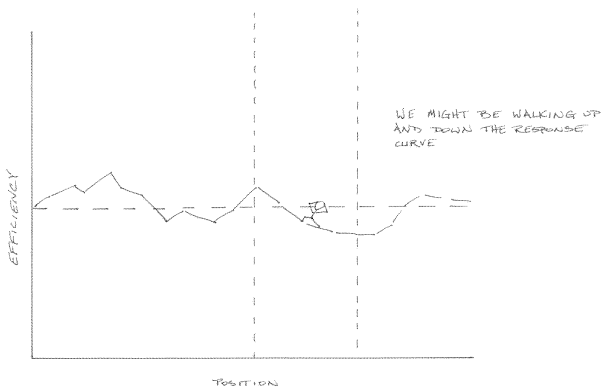
SOLUTION!

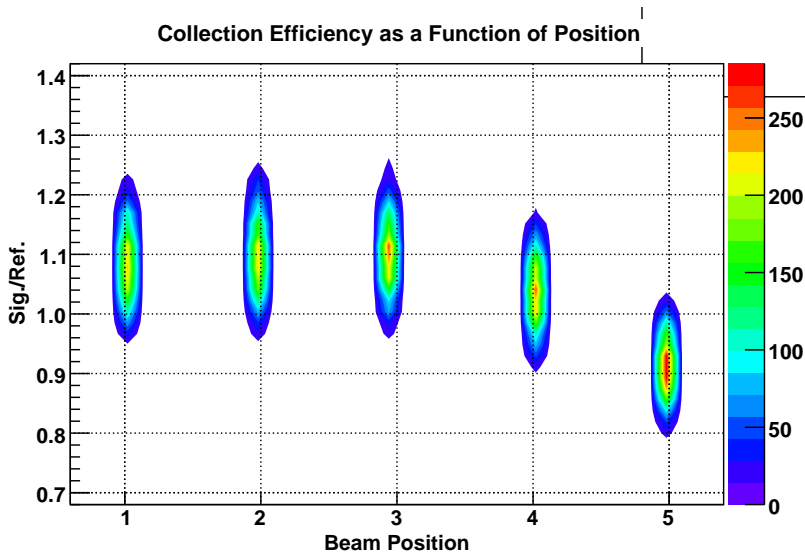
RE-FOCUS BEAM ON EXIT FROM SAMPLE COLUMN

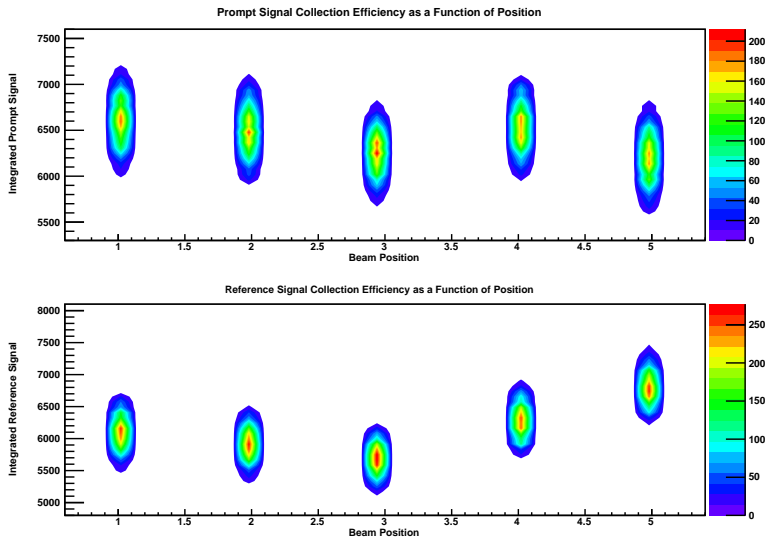


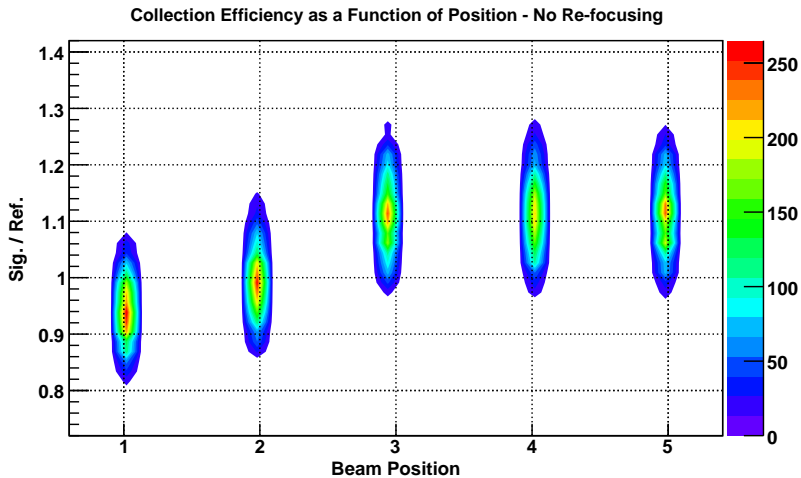


ARE WE SAMPLING COLLECTION EFFICIENCY?









Attenuation Measurements

